Research Area: Clothing

The topic of clothing covers all types of garments as well as the aesthetic value of clothing, other aspects such as size and fit, fastenings, functionality and design have been considered as part of TAGS research. Factors such as religion and culture, cost, marketing and fashion, occupation, the use of technology and age, amongst other things, can also attribute to the types of clothes a person wears.

The properties of clothing have also been assessed in terms of: fibre selection, thermo regulation, breathability, moisture management, layered systems, easy care and wash ability, odour control properties and the use of smart or e-textiles.

Key Findings

- Products and/or garments that enable the elderly to remain independent for longer are favourable.
- Features in clothing which make dressing easier or which have features such as, fall protection, for example, are being explored. These features do not necessarily have to be ICT based.
- Garments should be colourful and not restricted to dull colours which are often associated with clothing for the elderly.
- Marketing is also an important aspect when developing a product.
- Technologies from other market sectors such as sportswear could be transferred to the elderly clothing market.
- Simple adaptations to clothing could make big improvements to the design of elderly clothing.

- With age, things such as body shape and skin sensitivity change and these changes need to be reflected in the clothing available for the elderly.

Background

Clothing is an important part of everyday life; we spend all day, and for many, even all night in clothing. This fact about clothing is increasingly becoming taken for granted which can lead to stagnation in development in clothing technology and design. The balance between style and function has swung more towards style for a large part of society. The original purpose of clothing has not changed; it is worn to protect uncovered parts of the body against the environment, amongst other things. The prevalence of fashion has become increasingly more dominant over time and has more psychological importance as it can define a person's individuality, sexuality, occupation, social status and religion and even age.

Aims & Objectives

TAGS aimed to explore the problems faced by the elderly with regards to clothing.

The elderly today are changing the meaning of what it is to be 'old'. People are retiring at an older age and becoming increasingly active, not only physically but also in education and the community. These factors demonstrate that the older generation are remaining independent for longer. With this in mind, TAGS investigated the current status of clothing used in the different stages of elderly life from the active as well as those who are completely dependent.

Approach & Methods

A literature review assessing existing products has been made together with research into state of the art technology, general aspects of production and the possibilities of modifying material properties.

Questionnaire's were administered to selected care homes in regional areas in Austria, Germany, Italy and the UK to be answered on behalf of residents residing in the respective care facilities and addressed the following topics:

- What are the desired areas in clothing in which you would like to see modifications or improvements?
- What factors are considered when choosing garments for the elderly in care?
- Are cultural factors, such as religion or tradition, taken into account?
- What knowledge do care facilities possess of specialist clothing suppliers specifically for the elderly?
- What is the preferred type of material for garments?
- What desired functionalities would be desired in clothing, for example e-textiles?
- What factors prevent residents from dressing well?
- The wash ability and average lifespan of garments

Following the results from the questionnaires, brainstorming sessions were held at the TAGS bi-annual meetings in which the consortium and external speakers were invited to discuss the problems highlighted. All participants were then asked to come up with ideas for innovations or ways in which existing products can be altered to better suit elderly users.

Results & Outputs

Clothing that enables a person to remain independent for as long as possible is favourable, however this can be done through simple adaptations to clothing to make garments more accommodating for older people due to morphological changes that come with age, or, perhaps through the use of technology, for example smart textiles or the use of sensors. Smart textiles would also come with an advantage, especially for those in care, as in some circumstances it would reduce the need for round the clock monitoring as checks can be performed only when necessary also relieving caregivers of their duties.

As people age, they shouldn't be restricted to wearing certain colours e.g. beige, when designing garments for the elderly, the aesthetic value is also an important factor and should be considered during the design process.

There are many factors which make marketing a tricky concept to such as societal expectations of age, fast-fashion and the age of the models used to promote clothing ranges. It is important that there are suitable products available tailored to the elderly age range and that appropriate marketing campaigns do not deter them from buying products due to negative connotations concerning age.

Current research identified that there is a need to push developments in clothing for people in the latter stages of life, specifically in making it more adaptable to the demands of differing health conditions. Research and innovation has been made into many areas of clothing such as: space suits, armour, sportswear, protective clothing and swimwear and it would be of interest to draw upon these sectors and to grow a specific research field to develop clothing for the more dependent older people.

The following outputs highlight the success of TAGS by bringing together

- **VESTA**

Within an aging society, dressing ability is one of the first functions to be lost. Adaptive clothing can play an important role in simplifying the lives of the elderly with problems related to loss of

autonomy and also their caregivers. By designing clothes targeted to the specific needs can provide a simple, enhancing and encouraging solution for individual dignity."

VESTA is the name of the project carried out by knitwear artisans from Carpi (Emilia Romagna Region in Italy) with the support of Anziani e non solo, to create a clothing brand designed to be functional with regard dressing and undressing issues related to bedridden care recipients or those suffering from conditions such as; stroke, Parkinson's, Senile Dementia, Alzheimer's etc. The clothing also responds to the needs of people with temporary loss of autonomy, caused by for example, a fall, surgery or individuals simply looking for maximum comfort and easy-wear solutions.

"Linea Vesta" applies particular techniques from all aspects of textile design construction and performance and chooses easy washable and breathable fabrics made to ensure high performance i.e. elasticity and full adaptablity. The cooperation between a team consisting of health and social care professionals, fashion designers and caregivers using their direct experience and knowledge has allowed for such garments to be created.

- **Smart Fit In (NMP35-2014)**

It is the concern of this EU project to create very practical new production and distribution models for Micro enterprises and major enterprises which manufacture adapted products for people with movement restrictions in Europe.

Support & Collaboration

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For more information on the TAGS project, please visit the website at:
www.textilesforageingsociety.eu/

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